

I Claim as My Invention:

1. An system for processing a payment transaction during auctioning over an IP data network, comprising:

5 an auction server for a network connection between a first terminal associated with an auction supplier and a plurality of second terminals respectively associated with a plurality of auction bidders, the auction server including a controller;

a payment processing device coupled to the auction server;

10 a credit memory as part of the payment processing device, the credit memory having a plurality of first credit memory areas for storing electronic credit balances for the plurality of auction bidders; and

a comparator unit as part of the payment processing device, the comparator unit connected to both the controller of the auction server and the plurality of first

15 credit memory areas via a control and processing unit, the comparator unit comparing current bid data with respective credit data for the plurality of auction bidders and automatically outputting an authorization signal to the controller in the auction server in order to ascertain, as a result of the comparison, which of the plurality of auction bidders are authorized to participate.

20

2. A system for processing a payment transaction during auctioning over an IP data network as claimed in claim 1, further comprising:

a payment memory unit as part of the payment processing device, the payment memory unit connected to the credit memory for storing and blocking a part of an electronic credit balance of a successful bidder which corresponds to a highest bid.

25
3. A system for processing a payment transaction during auctioning over an IP data network as claimed in claim 1, further comprising:

a separately addressable second credit memory area as part of the credit memory, the second credit memory area for storing an electronic credit balance for the auction supplier; and

5 a separately addressable third memory area as part of the credit memory, the
third memory area for storing an electronic credit balance associated with an
auctioneer.

4. A system for processing a payment transaction during auctioning over an IP data network as claimed in claim 3, wherein the control and processing
10 unit has capability to electronically credit the electronic credit balance of the auction supplier in the second credit memory area by accessing the electronic credit balances for the plurality of auction bidders in one of the first credit memory areas, and also to internally electronically credit the electronic credit balance for the auctioneer in the third credit memory area by accessing the electronic credit balance
15 of the supplier.

5. A system for processing a payment transaction during auctioning over an IP data network as claimed in claim 1, further comprising:

20 a memory unit as part of the auction server, the memory unit including a bidder memory area containing bidder identification data and a bid data memory area containing stored bid data.

6. A system for processing a payment transaction during auctioning over an IP data network as claimed in claim 1, further comprising:

25 a plurality of interfaces respectively associated with the plurality of bidder terminals for connection to a plurality of respective bank servers and for connection, via an authentication unit in the payment processing device, to the credit memory in the payment processing device for crediting and debiting a respective electronic credit balance.

T00730248208860

7. A method for processing a payment transaction during auctioning over an IP data network, the method comprising the steps of:
 - storing a plurality of electronic credit balances for a respective plurality of auction bidders in a credit memory of a payment processing device connected to an auction server in the IP network;
 - sending, via one of a supplier terminal and an auctioneer terminal, minimum bid data to the auction server;
 - storing the minimum bid data under a transaction number in a memory unit of the auction server;
 - transmitting the stored minimum bid data with the transaction number to both a plurality of bidder terminals and, via a control and processing unit of the payment processing device, a comparator unit in the payment processing device;
 - receiving and comparing the minimum bid data, in the comparator unit, with respective credit data for the plurality of auction bidders by accessing first credit memory areas of the credit memory;
 - comparing, via the comparator unit, current bid data and the respective credit data for the plurality of auction bidders at each auction stage; and
 - outputting, as a result of the comparison, a selection signal to a controller in the auction server in order to ascertain which of the plurality of auction bidders are authorized to participate.

8. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 7, the method further comprising the step of:

- 25 storing and blocking, in the event of a successful bid, part of an electronic credit balance of a successful bidder under a respective transaction number and a payment memory unit in the payment processing device.

9. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 7, the method further comprising the step of:

5 storing, via the credit memory in the payment processing device, electronic credit balances both for the auction supplier in the second credit memory area and for the auctioneer in a third credit memory area.

10. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 7, the method further comprising the 10 step of:

accessing by the plurality of auction bidders, via an authentication unit in the payment processing device, the first credit memory areas and changing respective electronic credit balances before and during an auction.

15 11. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 9, the method further comprising the steps of:

20 releasing, once an auction object has been delivered, the part of the electronic credit balance of the successful bidder which is blocked in the memory unit by at least one of the successful bidder and the supplier entering at least one of the transaction number and a PIN; and

crediting electronically, via the control and processing unit in the payment processing device, the electronic credit balance of the supplier in the second credit memory area.

25

12. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 9, the method further comprising the step of:

lifting by the supplier, if an auction proceeding is reversed, the block on the part of the electronic credit balance of the successful bidder which is to be paid by entering the transaction number and a PIN.

5 13. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 9, the method further comprising the step of:

crediting electronically the electronic credit balance for the auctioneer in the third credit memory area by accessing the electronic credit balance for the supplier

10 in the second credit memory area.

14. A method for processing a payment transaction during auctioning over an IP data network as claimed in claim 7, the method further comprising the step of:

15 accessing the credit memory area by the supplier, via the authentication unit in the payment processing device, to change the electronic credit balance of the supplier after the auction.